AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1.-37. (Canceled)

38. (New) A method for screening a test compound as a candidate for preventing *M. tuberculosis* from entering the dormant stage in its life cycle, the method comprising:

a) providing a system, the system comprising a first and second member of a two-component signaling system, said members being individually expressed in *E. coli*, the first component being a hypoxia-responsive element, the hypoxia-responsive element being selected from the group consisting of a peptide comprising a catalytically active DevS domain and a catalytically active Rv2027c domain, and the second component comprising a catalytically active DevR domain,

b) providing a stimulus to promote autophosphorylation of the first component both in the presence and absence of the test compound, and

c) determining a difference in the relative levels of phosphorylation of the first component or relative levels of phosphorylation of the second component in the absence and presence of the test compound,

wherein a difference between the levels of the phosphorylation of the phosphorylated first or phosphorylated second component in the presence of the test compound and the levels of the phosphorylation of the phosphorylated first or phosphorylated second component in the absence of the test compound, respectively, indicates that the test compound is a candidate for preventing *M. tuberculosis* from entering the dormant stage of the lifecycle.

39. The method of claim 38, wherein the first component comprises a catalytically active, single domain derivative of DevS.

40. The method of claim 39, wherein the catalytically active, single domain derivative of DevS is selected from the group consisting of $DevS_{201}$, $DevS_{578}$, $DevS_{201}$-H395Q, $DevS_{201}$-H397Q, $DevS_{201}$-H397A, and $DevS_{201}$-N503D.

41. The method of claim 38, wherein the first component comprises the full-length $DevS_{578}$ protein.

42. The method of claim 38, wherein the second component comprises the catalytically active, single domain derivative of DevR.

43. The method of claim 42, wherein the catalytically active, single domain derivative of DevR is selected from the group consisting of $DevRN_{145}$, the mutant protein DevR-D8N, the mutant protein DevR-D9N, the mutant protein DevR-D54V, the mutant protein DevR-D54N and the mutant DevR-K104E.

44. The method of claim 38, wherein the second component comprises is the full-length DevR protein.

45. The method of claim 38, wherein the first and second full components comprise catalytically active, single domain derivatives of DevS and DevR, respectively.

46. The method of claim 45, wherein the catalytically active, single domain derivative of DevS is selected from the group consisting of $DevS_{201}$, $DevS_{578}$, $DevS_{201}$-H395Q, $DevS_{201}$-H397Q, $DevS_{201}$-H397A, and $DevS_{201}$-N503D and wherein the catalytically active, single domain derivative of DevR is selected from the group consisting of $DevRN_{145}$, the mutant protein DevR-D8N, the mutant protein DevR-D9N, the mutant protein DevR-D54V, the mutant protein DevR-D54N and the mutant DevR-K104E.

47. The method of claim 38, wherein the first and second components comprise full length DevR and DevS proteins, respectively.

48. The method of claim 38, wherein the first component comprises a catalytically active, single domain derivative of RV2027c.

49. The method of claim 48, wherein the single domain derivative of RV2027c is selected from the group consisting of $Rv2027_{194}$ and $Rv2027_{194}$H392Q.

50. The method of claim 38, wherein the first and second full components comprise catalytically active, single domain derivatives of Rv2027c and DevR, respectively.

51. The method of claim 50, wherein the single domain derivative of RV2027c is selected from the group consisting of $Rv2027_{194}$ and $Rv2027_{194}$H392Q, and wherein the catalytically active, single domain derivative of DevR is selected from the group consisting of $DevRN_{145}$, the mutant protein DevR-D8N, the mutant protein DevR-D9N, the mutant protein DevR-D54V, the mutant protein DevR-D54N and the mutant DevR-K104E.

52. The method of claim 38, wherein phosphorylation levels are determined in high-throughput format or by performing SDS-PAGE.